6EH7

Semiremote-Cutoff Pentode

9-PIN MINIATURE TYPE

GENERAL DATA

Electrical:

Heater Characteristics and Ratings *(Design-Center Values)*:

Voltage (AC or DC)	6.3 ± 0.6	volts
Current at heater volts = 6.3	0.300	amp
Peak heater-cathode voltage:		
Heater negative with respect to cathode	150 max.	volts
Heater positive with respect to cathode	150 max.	volts

Direct Interelectrode Capacitances:[a]

Grid No.1 to plate	0.005 max.	μμf
Grid No.1 to cathode, grid No.3, grid No.2, internal shield, and heater	9	μμf
Plate to cathode, grid No.3, grid No.2, internal shield, and heater	3	μμf

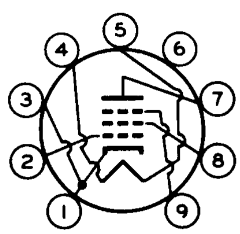
Characteristics, Class A$_1$ Amplifier:

Plate Voltage	200	volts
Grid No.3	*Connected to cathode at socket*	
Grid-No.2 Voltage	90	volts
Grid-No.1 Voltage	−2	volts
Plate Resistance (Approx.)	0.5	megohm
Transconductance	12500	μmhos
Plate Current	12	ma
Grid-No.2 Current	4.5	ma

Mechanical:

Operating Position	Any
Type of Cathode	Coated Unipotential
Maximum Overall Length	2-13/32"
Maximum Seated Length	2-5/32"
Length, Base Seat to Bulb Top (Excluding tip)	1-25/32" ± 3/32"
Diameter	0.750" to 0.875"
Bulb	T6-1/2
Base	Small-Button Noval 9-Pin (JEDEC No.E9-1)
Basing Designation for BOTTOM VIEW	9AQ

Pin 1 - Cathode
Pin 2 - Grid No.1
Pin 3 - Cathode
Pin 4 - Heater
Pin 5 - Heater



Pin 6 - Internal Shield
Pin 7 - Plate
Pin 8 - Grid No.2
Pin 9 - Grid No.3

AMPLIFIER — Class A₁

Maximum Ratings, *Design-Center Values:*

PLATE SUPPLY VOLTAGE	550 max.	volts
PLATE VOLTAGE	250 max.	volts
GRID No.3 (SUPPRESSOR GRID)	*Connect to cathode at socket*	
GRID No.2 (SCREEN-GRID) SUPPLY VOLTAGE	550 max.	volts
GRID-No.2 VOLTAGE	250 max.	volts
CATHODE CURRENT	20 max.	ma
GRID-No.2 INPUT	0.65 max.	watt
PLATE DISSIPATION	2.5 max.	watts

Typical Operation:

Plate Voltage	200	200	200	200	volts
Grid No.3	*Connected to cathode at socket*				
Grid-No.2 Supply Voltage	200	200	200	200	volts
Grid-No.2 Series Resistor	22000	22000	22000	22000	ohms
Grid-No.1 Voltage	-19.5	-9.5	-6.5	-2	volts
Transconductance	125	625	1250	12500	μmhos
RMS Grid-No.1 Voltage for cross-modulation factor = 0.01	450	160	100	-	mv

Maximum Circuit Values:

Grid-No.1-Circuit Resistance	1 max.	megohm

[a] Without external shield.